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THE CENTER for ENVIRONMENTAL FARMING SYSTEMS

Cultivating Thriving
Communities &
Sustainable Farms



**The Growth in Local Foods:
Threat or Opportunity?**



Center for Environmental Farming Systems

Mission: *To develop and promote agricultural systems that protect the environment, enhance rural and urban communities, and provide economic opportunities in North Carolina and beyond*

- Partnership initiated in 1994
 - NCSU
 - NCA&T SU
 - NCDA &CS

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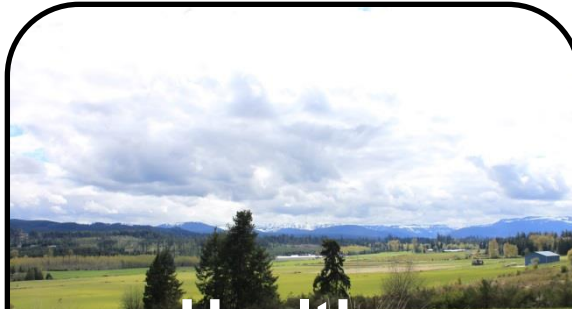


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CEFS Goals



Vibrant Farms



**Healthy
Ecosystems**



**Strong
Communities**



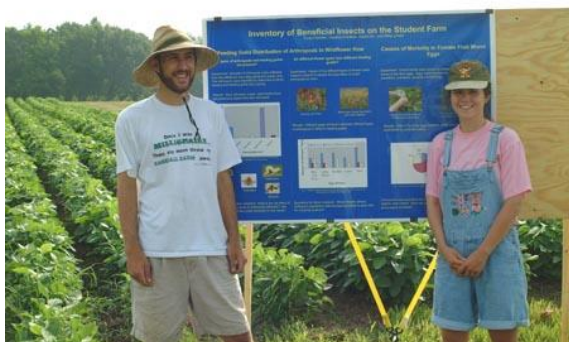
Healthy People



**Thriving Local
Economies**

CEFS Field Facility

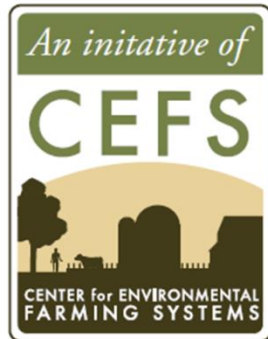
- 2000 acre Research, Academic, and Extension Facility
- Farming Systems Research
- Pasture-Based Dairy, Beef and Alternative Swine Unit
- Organic Research Unit
- Small Farm Unit



NC Choices
a Center for Environmental Farming Systems initiative



Food for today. Farming for tomorrow.



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NORTH CAROLINA GROWING TOGETHER

*Connecting Local Foods
to Mainstream Markets*

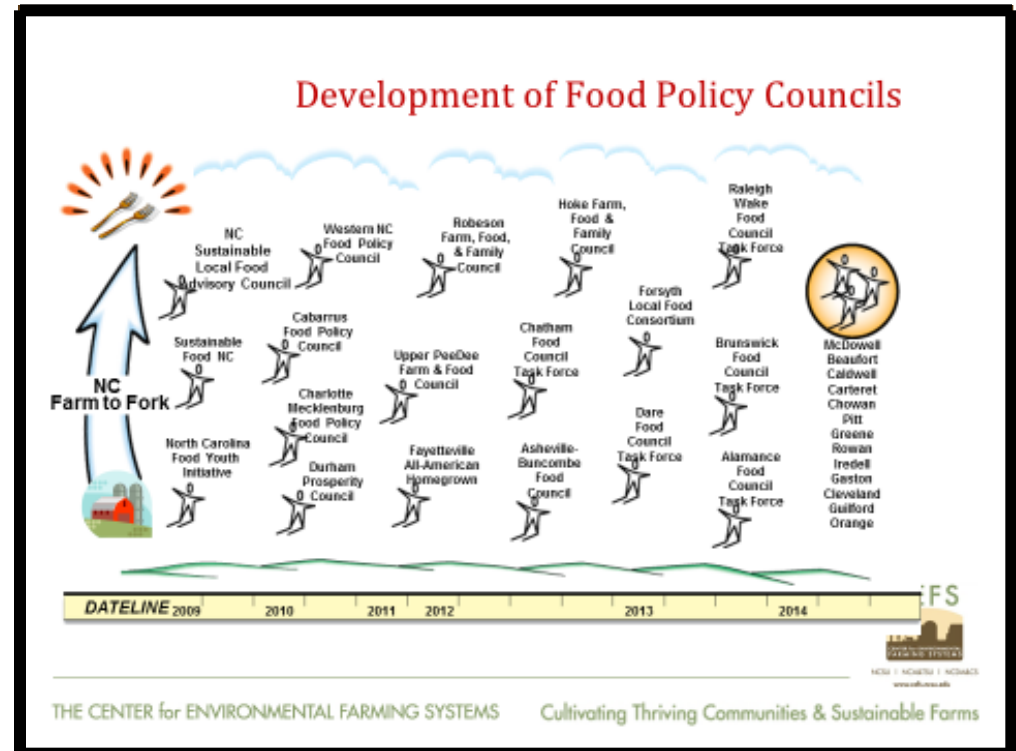
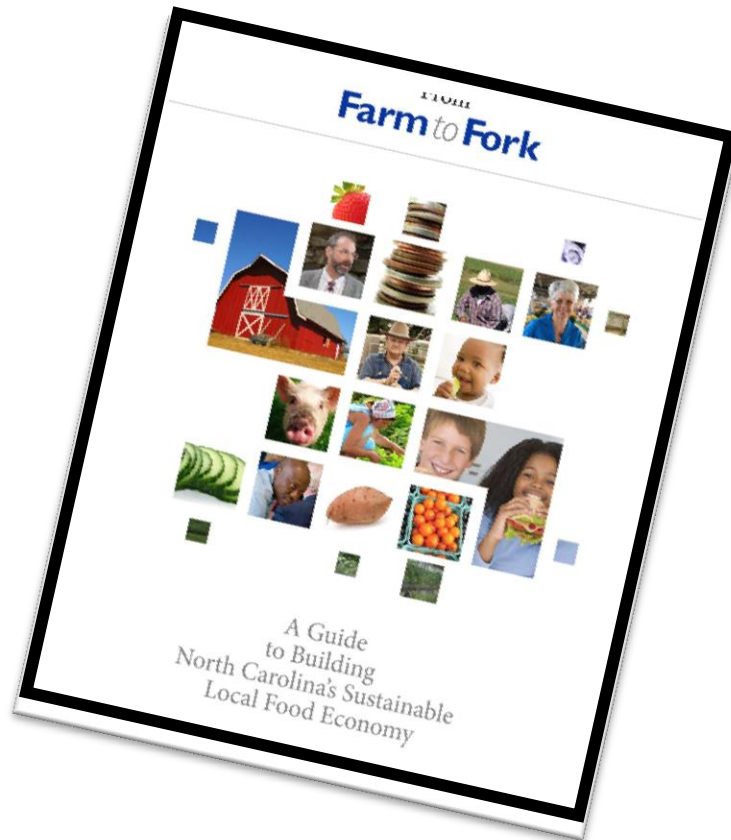


**bringing new farmers
to the table**  www.ncnewfarmers.org

THE CENTER for ENVIRONMENTAL FARMING SYSTEMS

Cultivating Thriving Communities & Sustainable Farms

CEFS' Local Foods Initiatives



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2015 USDA ERS Study:

Trends in US Local and Regional Food Systems

- In 2012, 163,675 (12 %) of farms marketing locally (DTC or Intermediated)
- ARMS and Census data show local food sales estimated \$6.1 billion in 2012 (estimated intermediated markets)



United States Department of Agriculture

Economic
Research
Service

Administrative
Publication
Number 068

January 2015

Trends in U.S. Local and Regional Food Systems

Report to Congress



Big Trends in Food



What's **HOT**

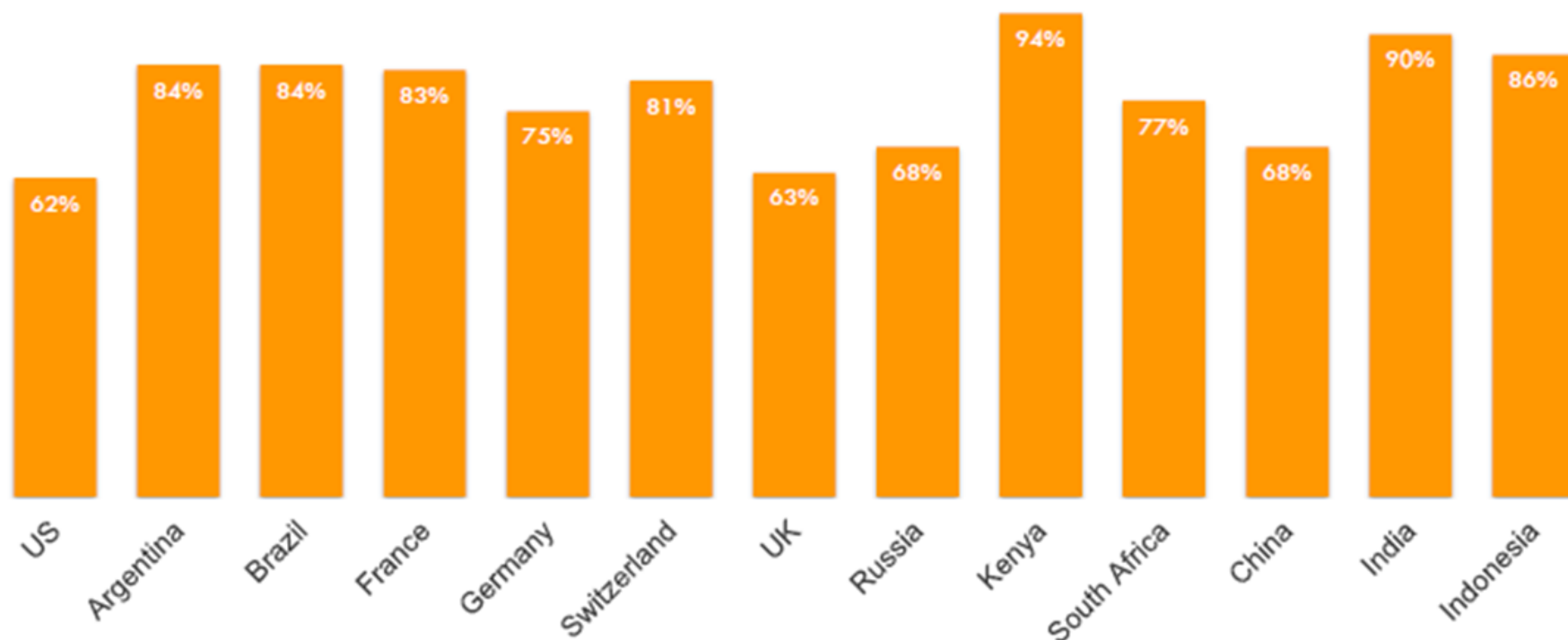
2015 CULINARY FORECAST

TOP 5 FOOD TRENDS

1. Locally sourced meats and seafood
2. Locally grown produce
3. Environmental sustainability
4. Healthful kids' meals
5. Natural ingredients/ minimally processed food



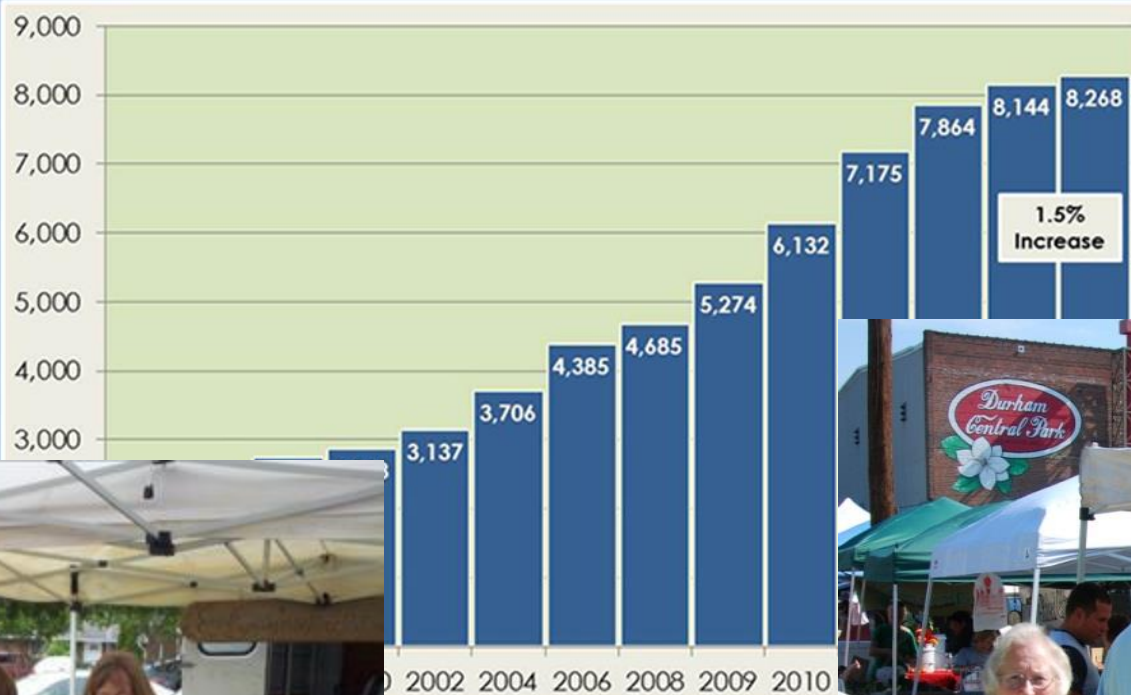
Organic/ local/ urban farming preferred



Do you believe that priority should be given to organic, local and/or urban farming practices over higher production methods utilizing new technologies to feed the growing population?



National Count of Farmers Market Directory Listings



Marketing Services Division

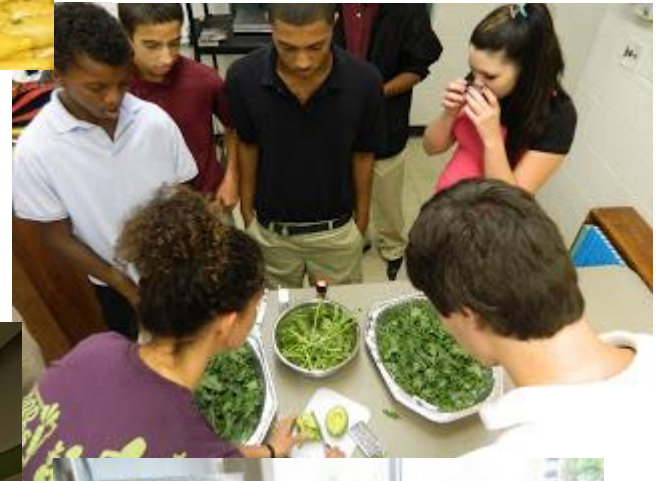
Primary and self-reported to USDA-AMS-Marketing Service

Last Modified Date: 08/14/2014

- Farmers Markets sales >\$1 billion



Farm to Institutions: Scaling Up



The Challenges

Business Development challenges	Changes in business models on farm side or business side
Food Safety (GAP) certification and training	Liability insurance
Development of aggregation centers and food hubs	Price
Cold Storage and other infrastructure	Quality standards and uniformity
Processing infrastructure and capacity	Innovative distribution models
Farmer Training (Cooperative Extension)	Access to credit
Research	Diversification
Zoning and Present Use Value	Production capacity
Farmland Preservation	Business planning and assessment and flexibility in business models
Regulatory Reform	Expectations/contracts

Millennials

- Willing to pay for fresh and healthy food, and are willing to go to great lengths to find it.
- More aligned with the “food movement” and love things like organic farms, small batch jams and artisanal cheese.
- This shift – by millions of people – is changing the marketplace forever
- Local food for them is mainstream
- Information is how they roll

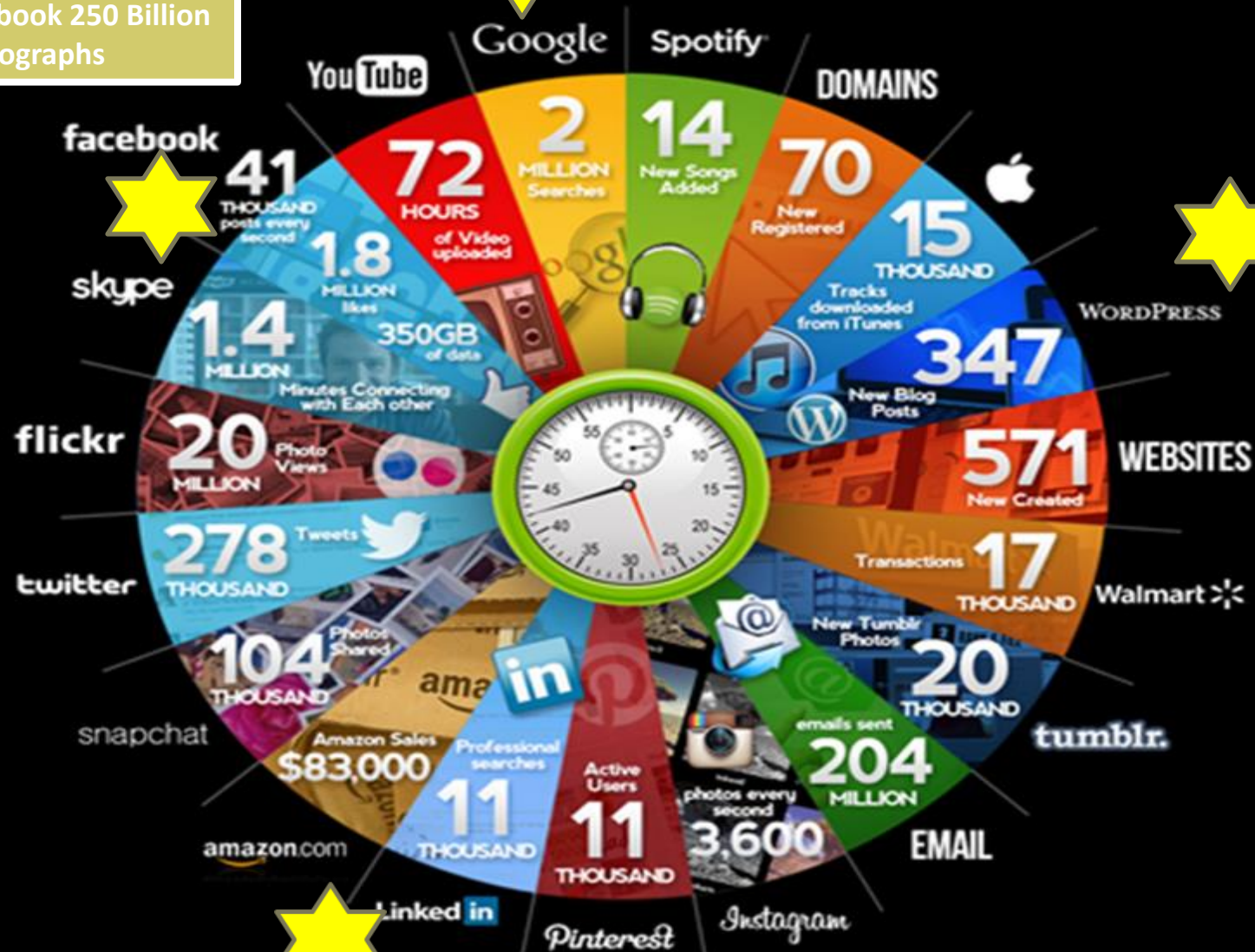


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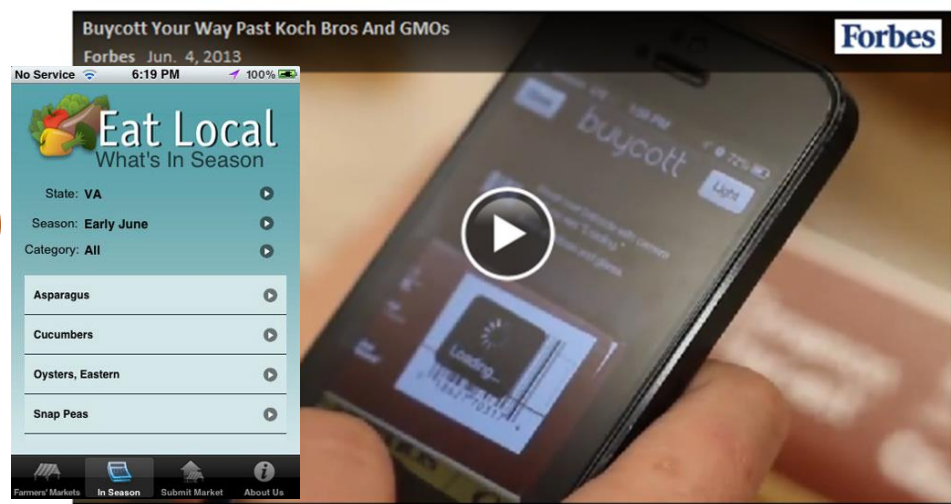
In 60 seconds online in 2013

Fast Company

Facebook 250 Billion
photographs



It's affecting how we shop

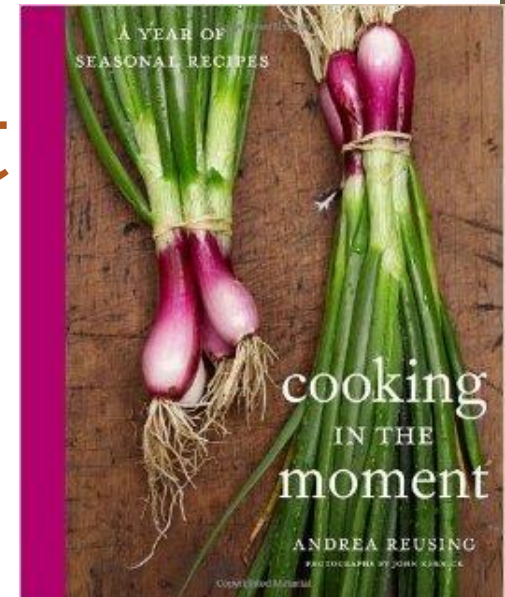


It's affecting how we cook

- 1/3 cooks use smartphones for recipes



It's affecting how we eat



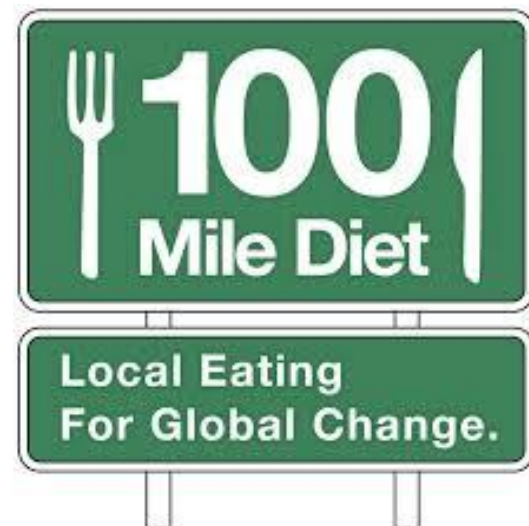
..Are Local Foods a Threat?

1. “Consumers are more aware, but there is so much misinformation, it’s hurting agriculture”.
2. “We’ll never feed the world on ‘local foods’, so it’s a distraction from the direction we need to head and absorbing resources that should go elsewhere.”
3. “There are food safety concerns, how will we control risk on so many distributed farms and market outlets?”



..Is it a Threat?

4. “We risk replacing a culture of cheap and plentiful food with one of hyper-expense and scarcity.”
5. “It’s not more efficient to grow produce in areas that are not suited, so, for example, things like the 100 mile diet are fallacies when it comes to saving energy or the environment”
- Others?



1. Consumers are more aware, but there is so much misinformation, it's hurting agriculture

Certainly a lot of misinformation on the fringes



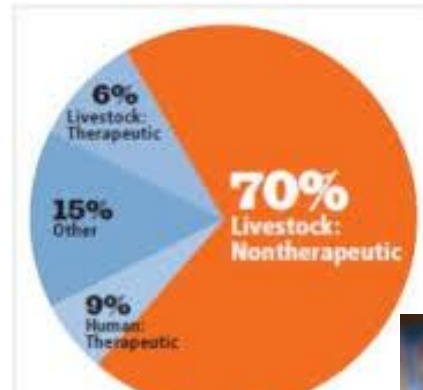
Of the engaged public, most in the middle are intelligent, well-educated, well-read and do understand agriculture. There is just disagreement.



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Be Careful not to Oversimplify “if only they were educated”

It is possible for people to have **accurate scientific** information and still disagree on the direction agriculture should head

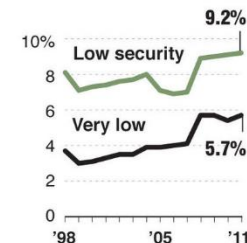


Food insecurity in the U.S.

Nearly 18 million U.S. households (50 million people) had “food insecurity,” trouble feeding family members at some point in 2011.

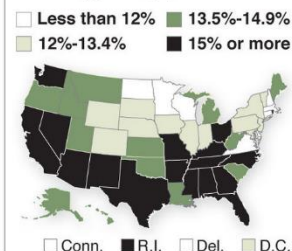
Food insecurity trends

Percent of households with food insecurity since 1998



By state

Percent of households with food insecurity; average, 2009-11



With and without enough food

By household

	Enough food	FOOD SECURITY			
		Low		Very low	
'11	101.6 million 85.1%	11.0 million 9.2%	6.8 million 5.7%		
'10	101.5 85.5	10.8 9.1	6.4 5.4		
'09	100.8 85.3	10.6 9.0	6.8 5.7		
'08	100.4 85.4	10.4 8.9	6.7 5.7		

Source: U.S. Department of Agriculture
Graphic: Judy Treible

© 2012 MCT

Mainstream

We'll never feed the 9 billion on 'local foods', so it's a distraction from the direction we need to head. (threat no. 2)

We need to focus on higher yields through more technology. That's how we'll feed the 9 billion. We need to intensify agriculture to get more yield with the same resources.

Informed "Foodie"

We're not feeding the world now. In this country there are 49 million who are food insecure. In North Carolina, 17.3 percent of families (1 in 5 children) are food insecure.

But we have enough calories now to feed the world (yet worldwide, 1 in 8 go to bed hungry). Food insecurity and hunger aren't currently related to a lack of food produced. People need money, education, access to land, access to transportation and food related infrastructure, and access to fresh and healthy foods. They need access to better food not more food.

3. Increased Food Safety Concerns

No evidence or data to support this



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4. Hyper-Expense and Scarcity

- No one (well...almost no one) is saying everything has to be local
- Those engaged in developing local food systems are as concerned about affordability as anyone.
- Many are developing models to address affordability and access in spite of the price conundrum



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Price

1. Low et al. 2015; 2006 Nielsen Homescan Panel Data
 - Produce prices at DTC outlets are lower, on average, than prices at grocery stores in all seasons
2. McGuirt et al. 2011- North Carolina
 - Compare summertime prices of 230 produce items in 12 North Carolina counties
 - Find an average price savings of 18 percent at the farmers' markets

The Price Conundrum

- There is a trade-off between improving access of local and healthy foods (infers low cost) and insuring farmers receive adequate compensation to stay in business
- Can we have both affordable healthy food for all and more farmers?
- Farmers alone shouldn't bear the brunt of keeping food affordable food for all.

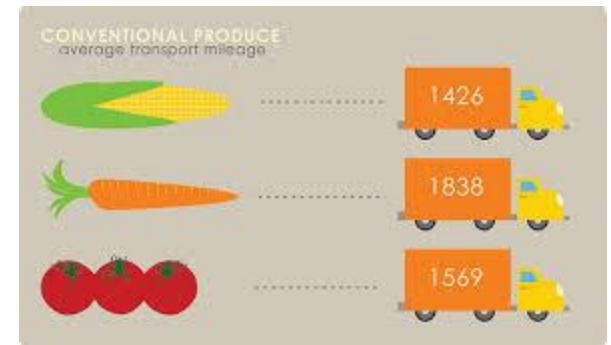
Our Farmers

- Average age of farmers is 58
- Since 1964, we have lost approximately 1 million farms in the US (USDA ag census)
- In NC, there were 100,000 farms in 1976 and 48,000 farms in 2008
- There are now more people in prison than on farms.



5. “Efficiency” argument

- Reducing Carbon Footprint case is made, but it's less common now
- It depends....how, what, where
- How do we measure efficiency? What's in and what's out?



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Local Foods as Opportunity

1. Job creation
2. Economic development
3. Better health
4. Reduced health care costs
5. Farm profitability
6. Supports new farmers
7. More green space
8. Enhanced environmental quality
9. Enhanced Food Security
10. Other?

A screenshot of the 10% Farm to Fork website. The header features the logo "10% BUILDING NORTH CAROLINA'S LOCAL FOOD ECONOMY Farm to Fork" and a banner for the "Join the 10% Campaign" by the Center for Environmental Farming Systems Initiative. The main content area includes a "In Season" section with a photo of red apples, a "Here's How It Works" section with a list of steps, and a "Watch Us Grow" section with statistics: 6907 people and 894 businesses spent \$54,162,414 locally since July 2010. A "Sign Up Now" button is prominently displayed.

10% BUILDING NORTH CAROLINA'S LOCAL FOOD ECONOMY Farm to Fork

Join the 10% Campaign
a Center for Environmental Farming Systems Initiative

Home Our Partners Learn More Events

In Season

Here's How It Works
Join us in support of North Carolina's farmers, businesses and communities.

- ✓ Pledge to spend 10 percent of your existing food dollars locally
- ✓ We'll email you with a few simple questions each week
- ✓ We'll track your progress, and you'll see our progress statewide

Sign Up Now

Watch Us Grow
6907 people
and **894 businesses**
spent **\$54,162,414** locally
Since July 2010

Help us build North Carolina's local food economy by joining the campaign and encouraging your family, friends and neighbors to do the same.

[View Seasonality Chart and check out our NEW pocket guide!](#)

Contextualizing the Opportunity...

Do we agree?

- The primary purpose of agriculture is providing food for people
- In such a way that is an asset to our health and well-being



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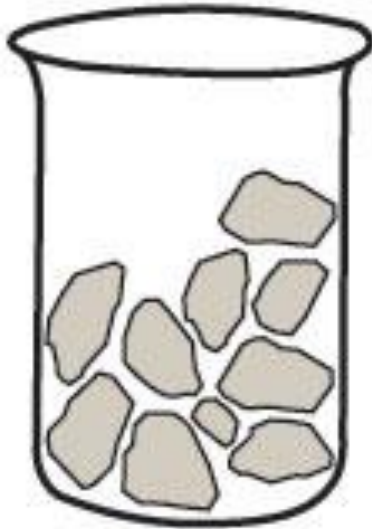
How are we doing?

- 49 million in US Food Insecure (8.6 million children)
- Obesity-related medical treatments approximately \$147 billion annually (including the cost of diabetes). 35% of adults (CDC)
- One in three children are overweight or obese
- A third of the children born in 2000 or later will develop diabetes
- 27 percent of those who go to military recruiting stations are too heavy to serve

It's a "Both-And"

Taking the Best of Both has real potential

mainstream



local foods



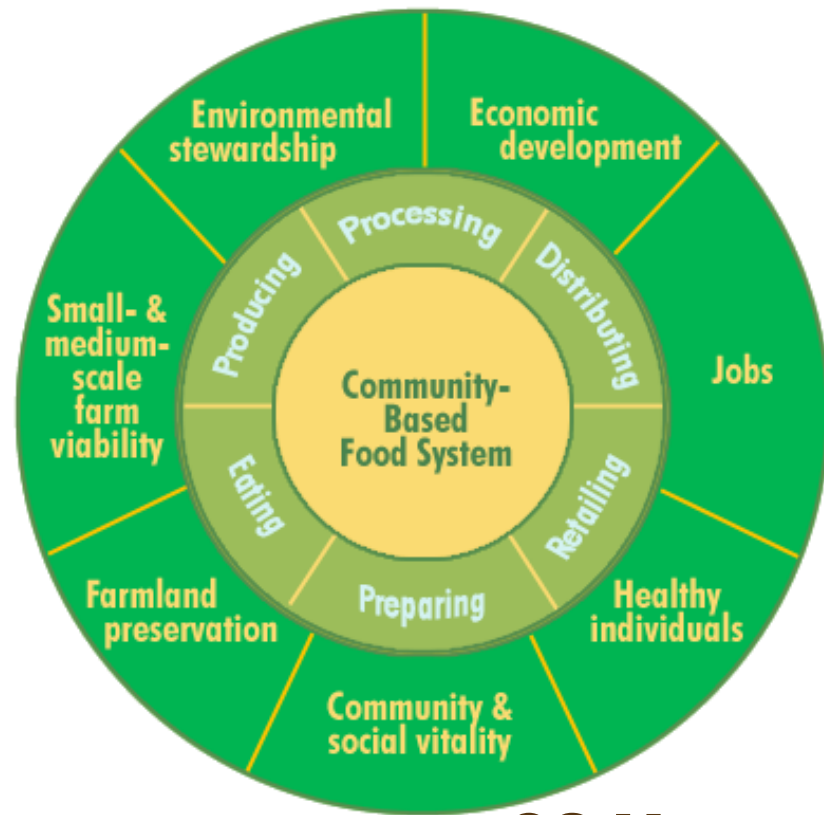
**The best
of both**



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It's not just happenstance: We strategically try to achieve the following through Local Agriculture

- More Availability
- Better Health Outcomes
- Economic Development
- Job Creation
- More farmers
- More food businesses
- Environmental sustainability
- More climate resilient and adaptive

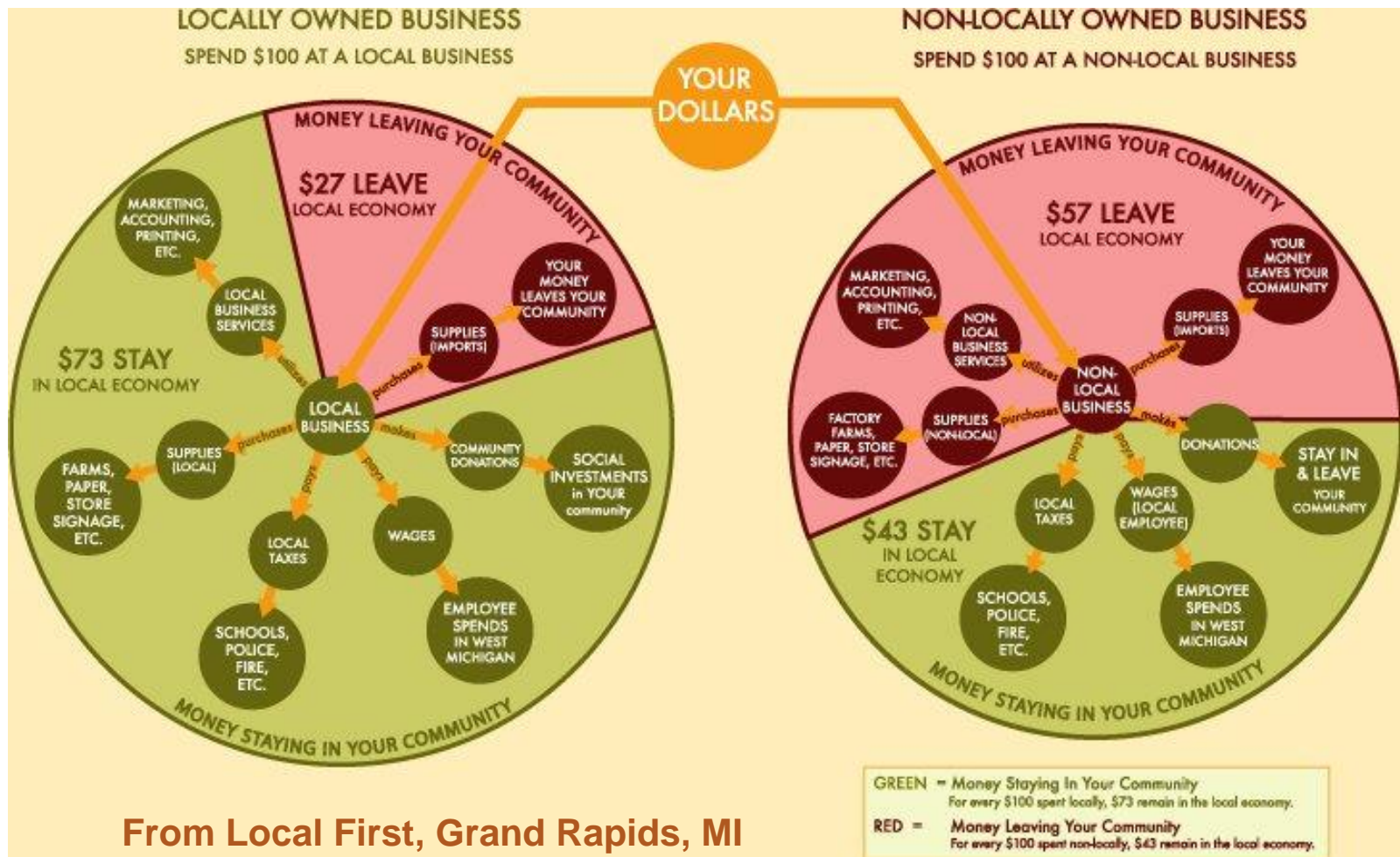


CS Mott

Economic Impact

The Multiplier Impact

The more times a dollar circulates in a given geography and the faster it circulates before leaving, the more income wealth and jobs it creates.



From Local First, Grand Rapids, MI

Local Food Business

- Wallace Center and Business Alliance for Local Living Economies studied 24 local food enterprises nationally
- “Two to four times the income, wealth and jobs than at an equivalent non-local business”

Job Creation

- On-Farm
- Processing Centers
- Value added Centers
- Distribution networks
- Retail outlets
- Farm to Institution





presents the 1st Annual
CAROLINA MEAT CONFERENCE

www.carolinameatconference.com

Bringing together independent meat producers, processors, buyers and allied professionals for a weekend of workshops, trainings, panel discussions and networking to strengthen marketing and processing opportunities for the region's rapidly growing local meat industry.

March 25-27, 2011 at the Cabarrus Arena and Event Center in Concord, North Carolina

- Explore how production and processing practices impact meat quality and marketability.
- Engage in hands-on training to improve carcass utilization, learn artisanal butchery techniques, and develop value-added products.
- Learn about innovative marketing alliances that are expanding the supply of local meat.
- Discuss emerging trends and issues, including regulatory compliance, food management, animal welfare, marketing claims, production standards, this
- Panel Discussions, Presentations, and Demonstrations with representatives from the NC Department of Agriculture and Forestry, USDA, and NC Cooperative Extension, as well as North Carolina's top chefs and food entrepreneurs.

in addition to:

HANDS-ON TRAININGS

Optimizing Carcass Utilization: A Training for Commercial I

and
Demystifying the Beef and Pork Carcass: A Breakdown fr
Dr. Gregg Rentfrow, University of Kentucky, Food & Me
and presented by *Weaver Street Market*
Artisanal Butchery and Whole Animal Utilization for Profit

and
Butchery Craft in Your Home Kitchen for Consum
Tia Harrison, The Butcher's Guild, Owner - Avedanos
and Executive Chef - *Sociale, San Francisco, CA*
Marissa Guggiana, The Butcher's Guild, President - Sonoma Dir
and Author of *Primal Cuts: Cooking with America's B*
Craig Deihl, Executive Chef- Cypress, Charleston,
Berlin Reed, The Ethical Butcher, Portland, OR

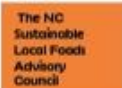
KEYNOTE

Scaling the Supply of Quality, Locally Produced Meats
Mike Lorentz, Lorentz Meats, Cannon Falls, MN



NC Choices
presents
**WOMEN
WORKING
in the
MEAT
BUSINESS**

November 9 - 11, 2014



NC Choices
a Center for Environmental Farming Systems initiative





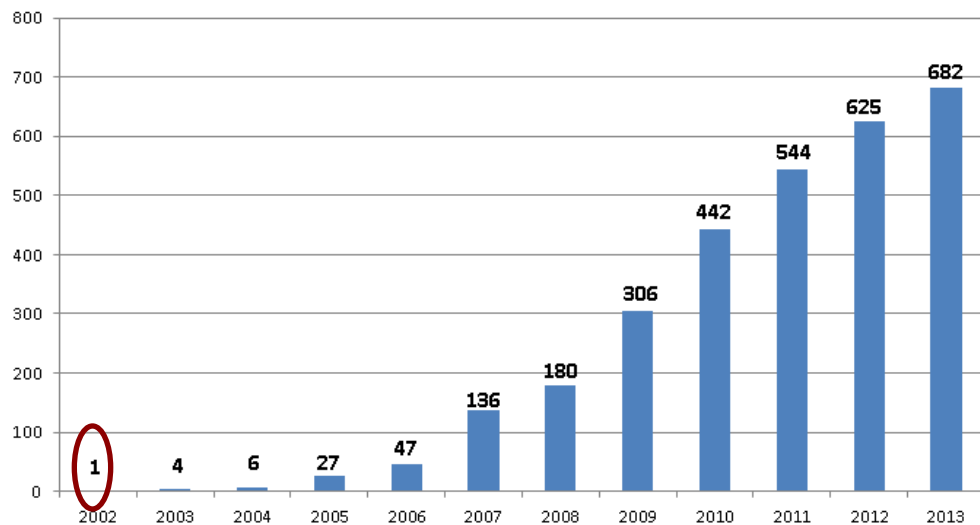
(M)EAT LOCAL BOX



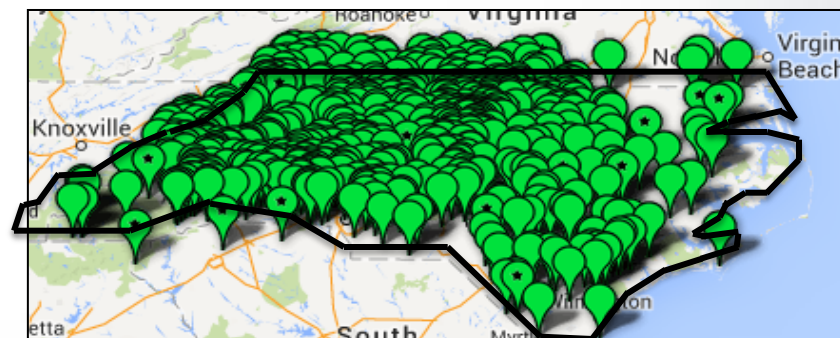


Rise in NCDA & CS NC Farmer Meat Handler Registrations

NC Farmer Meat Handler Reg.



2014: 842



Local Foods as Entrepreneurship



PIEDMONT FOOD & AG
PROCESSING CENTER
HILLSBOROUGH, NORTH CAROLINA



The Produce Box



WALKING FISH

A community supported fishery

Spawning Entrepreneurship: Farm to School

- New Farm Enterprises
- Light Processing and Preparation
- New Recipes and Products
- New Distribution Channels



Get them eating well when they are young

- Taste
- Experiential opportunities



Research has Shown

- Students participating in a nutrition education program (at school) that was combined with garden experiences significantly increased their daily intake of fruits and vegetables from 1.9 to 4.5 servings (McAleese and Rankin, 2007)



Food Access

“I can go and buy every variety of fried chicken imaginable on the west side of Chicago. I can get it in great variety. I can buy cigarettes.... I can get liquor. I can get designer clothes. I can get heroin, I can get crack. I can get a gun, but I can't get an organic tomato. I can't get a cup of yogurt. I can't get romaine lettuce....I can't get a banana or an apple. But I can get every variety of potato chip there is”.

-----La Donna Redmond



No Car and No Supermarket Store Within a Mile



Innovative models being developed



The Produce Box

FARMER Foodshare



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- Initiated in 2009
- 1 to 1 match to SNAP beneficiaries to purchase locally grown fruits and vegetables at farmers markets
- Now at 150 sites benefiting 200,000 families and a multitude of farmers
- Expanding nationally and to grocery stores



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Food Insecurity Nutrition Incentive Program

- \$100 million in last farm bill for grants to organizations over 5 years to help make fruits and vegetables more affordable to SNAP recipients.
- Requires a 1:1 match so leverages another \$100 million.
- Also \$110 million in funding for seniors for the Senior Farmers Market Nutrition Program



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- Been in existence since 2004 grower-staff owned LLC
- Eighty percent of sales go directly to growers
- In 2005, 13 grower and 2 staff owners.
- In 2011, over 70 growers, 130 customers, \$2.7 million in sales
- 26,000 sq ft warehouse



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- Farm to Food Bank
- Corporate Sponsor
- Tax Deduction for buying produce to deliver to Food Banks
- Supports Farmers
- Provides \$2000 weekly worth of organic produce to Food Bank



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- Started in 2007
- Now feeding 8500 families
- Buying 2 million pounds of local product in NC.
- Currently includes produce, meat, cheese, bread, honey, jam.
- Support 40 farmers- 200 moms/dads/kids delivering



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- Donate 300 lbs of produce per week to food banks
- Produce packs to 450 lower-income families with kids who participate in summer camp
- Encourages the purchase of "community boxes" and "hero boxes"
- Last year provided 1600 boxes to families in need
- Also making small grants to farmers



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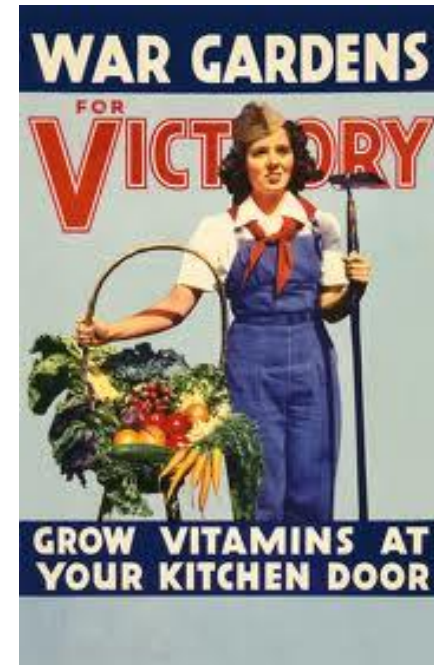
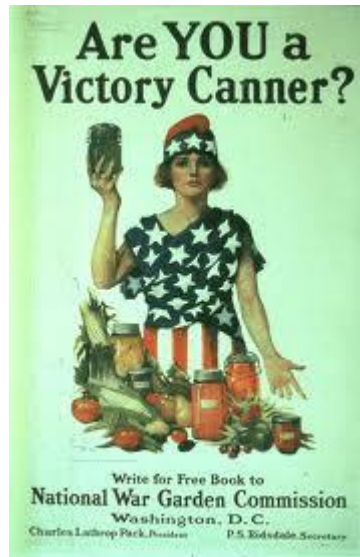
FARMER Foodshare

- Donation stations at farmers market
- Receiving funds or produce from shoppers
- Farmers donate excess
- 100 tons since inception



Let's not forget the impact of Victory Gardens

- During World War II, Americans planted 20 million gardens and produced 40% of our fruits and vegetables





SHARE THE HARVEST

DONATE YOUR EXTRA HARVEST TO FIGHT HUNGER IN OUR COMMUNITY

"Quality produce from local gardens to families in need".

Follow us  Like us

www.sharetheharvestguilfordcounty.org

Produce Collection Sites

First Lutheran Church

3600 West Friendly Ave. Greensboro
Sun, 12 - 3pm & Wed, 4 - 7pm

NC Cooperative Extension

Ag. Center, 3309 Burlington Road
Mon - Fri, 8am - 5pm

Community Lutheran Church

4960 US Highway 220 N, Summerfield
Sun, 1 - 4pm

Covenant Church United Methodist

1526 Skillet Club Road, High Point
Tues, 9am - 4pm

Sedgefield Presbyterian

4216 Wayne Road, Greensboro
Sun, 11am - 1pm or Mon, 1 - 4pm

Elijah's Pantry

3929 Johnson Street, High Point
Mon - Thurs, 9am - 2pm

The Cloud Connection

2207 E Green Drive, High Point
Tues, Thurs & Sat, 10am - 2pm

High Point SDA Food Pantry

279 Eastchester Drive, High Point
Mon, Wed & Fri, 10am - 1pm

Salvation Army

301 W Green Drive, High Point
Mon - Sun, 8am - 5pm

First Baptist Church

1415 Neelley Road, Pleasant Garden
Sun & Wed, 5 - 7pm

Helping Hands Ministry

2401 South Main Street, High Point
Mon - Fri, 9am - 5pm & Sat, 11:30am - 12:30pm

Check website for updates and changes

YOUR CONTRIBUTIONS WILL BENEFIT OUR COMMUNITY EFFORTS FOR FAMILIES TO OVERCOME FOOD INSECURITY

www.sharetheharvestguilfordcounty.org

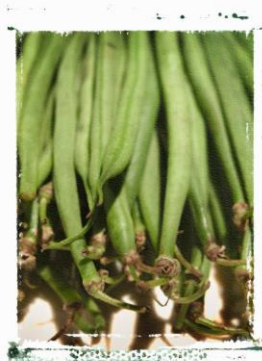


Research has Shown

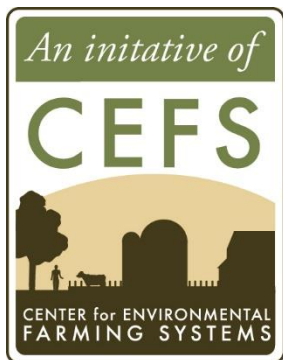
- Participation in a community garden is associated with greater fruit and vegetable intake, with 56% of community gardeners meeting national recommendations of fruit and vegetable consumption (5 servings per day), compared to 25% of non-gardeners (Litt et al, 2011)



Local Foods as Opportunity



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NC GROWING TOGETHER

*Connecting Local Foods
to Mainstream Markets*

- Bring more locally grown foods into mainstream retail and food service supply chains
- Supply chains of produce, meat, dairy, and seafood
- Strengthen the ability of small and mid-scale farmers and fishing operations to enter these mainstream markets profitably



United States
Department of
Agriculture

National Institute
of Food and
Agriculture

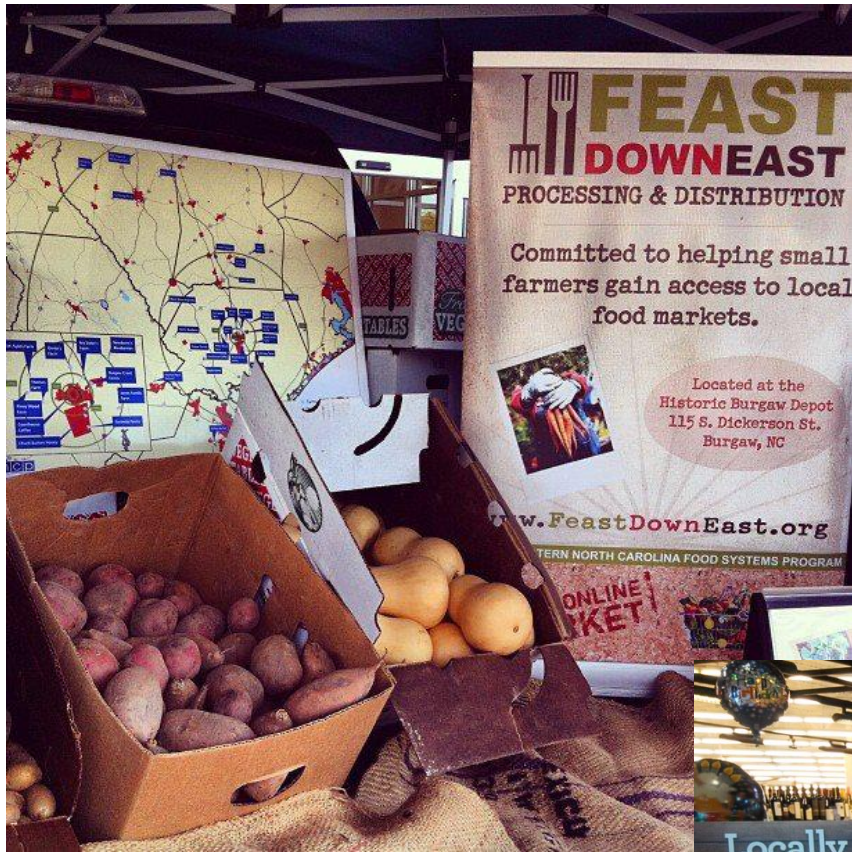


NC Growing Together Partners

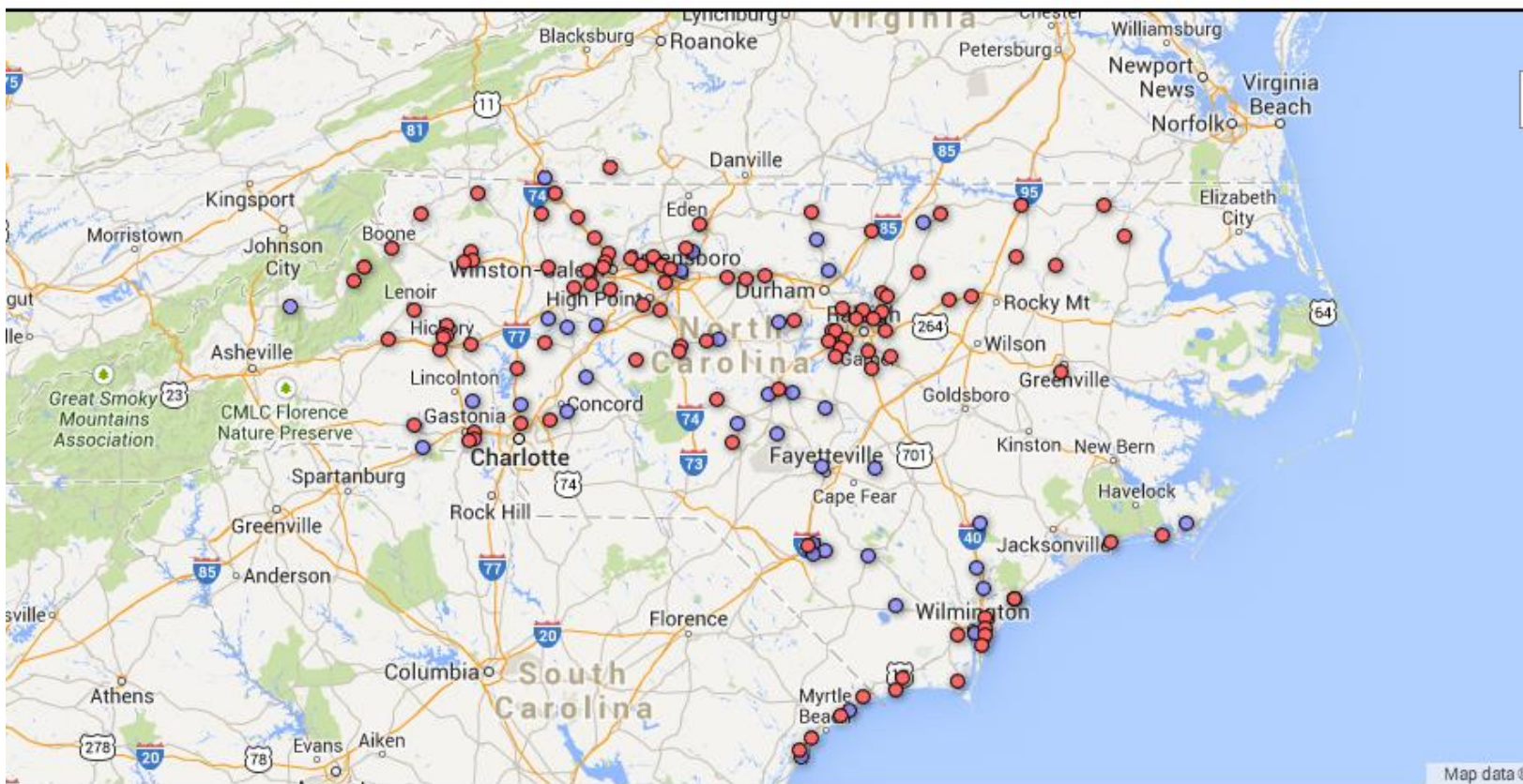


**PIEDMONT FOOD & AG
PROCESSING CENTER**
HILLSBOROUGH, NORTH CAROLINA





Lowes Foods: 30 new Direct to Store Vendors in 2013



Local Foods as Opportunity



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PIEDMONT FOOD & AG PROCESSING CENTER HILLSBOROUGH, NORTH CAROLINA

- **Business Incubator/Shared commercial kitchen**
- **Collaborative between 4 counties**
- **Provides facilities, trainings, TA**



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- **Local Foods Promotion Program Grants Program**
- **Food Hubs**
- **Wholesale markets**



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